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EXAMINER	
PATEL, CHIRAG R	

ART UNIT	PAPER NUMBER
2141	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/600,856	KUEHL ET AL.	
	Examiner	Art Unit	
	Chirag R. Patel	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 May 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40 and 43-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-8,10-40 and 43-45* is/are rejected.

7)☒ Claim(s) *4, 9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

Applicant's arguments with respect to claims 1-45 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

Claim 23 is objected to because of the following informalities: Claim 23 depends from claim 23, a claim cannot depend on itself. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 5-6, 7-8, 10-38, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Billhartz (US 6,986,161) in view of Ammon et al. – hereinafter Ammon (US 2003/0217289).

As per claims 1, 13, and 25 and 35, Billhartz discloses a method, comprising:

receiving node information for a node coupled to a computer network; (Col 4 lines 4-13)

determining whether to issue an alarm indicating a network intrusion responsive to receiving the node information by comparing a unique identifier included in said node information to a database (Col 4 lines 4-13)

automatically linking at least a portion of said node information to an existing database entry in the database and not issuing the alarm when the comparison indicates a tracked entity that corresponds to the node issuing the alarm indicating the network intrusion and (Col 4 lines 4-13)

Billhartz fails to disclose creating a new database entry when the comparison indicates that the node is a new entity. Ammon discloses creating a new database entry when the comparison indicates that the node is a new entity. ([0023]) At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to creating a new database entry when the comparison indicates that the node is a new entity in the disclosure of Billhartz. The motivation for doing do would have been to discover both authorized and unauthorized access points and authorized and unauthorized client machines that may be trying to connect to the wireless network. ([0023])

As per claim 2, Billhartz / Ammon disclose the method of claim 1, and Billhartz discloses further comprising analyzing the node information to select the unique identifier; wherein the selected unique identifier is not a network address such that a false alarm is not sent regardless of whether the node is subject to dynamic address assignment. (Col 4 lines 4-13, Col 6 lines 5-16; The data link layer further includes media access control (MAC) and logical link control sub-layers. In accordance with the invention, the nodes 11, 12 preferably use the MAC layer for transmitting data therebetween, and each has a respective MAC addresses associated therewith, Col 9

lines 23-33, Col 11 lines 12-22; discloses unique identifier as a MAC address and reads on claim limitations not a network address such that a false alarm is not sent regardless of whether the node is subject to dynamic address assignment)

As per claim 3, Billhartz / Ammon disclose the method of claim 2. Billhartz discloses wherein the alarm is not issued when the comparison indicates the tracked entity that corresponds to the node regardless of whether the node information identifies an unlisted Internet Protocol (IP) address that is absent from the database at a time that the node information is received. (Col 4 lines 4-13, Col 11 lines 12-22; A further advantage of the invention is that it may be used to supplement existing intrusion detection systems, particularly those that focus on intrusion in the upper OSI network layers; upper OSI network layers includes the network layer (layer 3) which examines the IP address)

As per claim 5, Billhartz / Ammon disclose the method of claim 1. Billhartz discloses the method of Claim 1, further comprising:

analyzing the node information to select the unique identifier; wherein the selected unique identifier is not based solely on an IP address such that the determination of whether the alarm is sent is independent of whether the node is subject to static or dynamic address assignment. (Col 9 lines lines 23-33, Col 11 lines 12-22, discloses unique identifier as a MAC address and an authorized network in addition to ip address as in upper OSI network layers)

As per claim 6, Billhartz / Ammon disclose the method of claim 5. Billhartz fails to disclose wherein the unique identifier is a combination of a physical address and a network address for the node. Ammon discloses wherein the unique identifier is a combination of a physical address and a network address for the node. ([0117],[0118]) At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to disclose wherein the unique identifier is a combination of a physical address and a network address for the node in the disclosure of Ammon. The motivation for doing do would have been to store the results of that monitoring, processes the results to determine whether any unauthorized access of the wireless network of interest has occurred, and notifies users of the results and the processing. ([0012])

As per claim 7, Billhartz / Ammon disclose the method of claim 5. Billhartz discloses wherein the unique identifier that is compared to the database includes a domain name associated with the node. (Col 11 lines 12-22; authorized network as domain name) Billhartz fails to disclose wherein the unique identifier that is compared to the database includes a domain name associated with the node, a computer name associated with the node and one other value associated with the node. Aamon discloses wherein the unique identifier that is compared to the database includes a domain name associated with the node, a computer name associated with the node and

one other value associated with the node. ([0117],[0118]) At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to disclose wherein the unique identifier that is compared to the database includes a domain name associated with the node, a computer name associated with the node and one other value associated with the node in the disclosure of Ammon. The motivation for doing do would have been to store the results of that monitoring, processes the results to determine whether any unauthorized access of the wireless network of interest has occurred, and notifies users of the results and the processing. ([0012])

As per claims 8 and 32, Billhartz / Aamon disclose the method of claim 7. Billhartz fails to disclose wherein the other value is a security identifier, a serial number or a physical address. Aamon discloses wherein the other value is a security identifier, a serial number or a physical address. ([0117]-[0118]) At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to disclose wherein the other value is a security identifier, a serial number or a physical address in the disclosure of Ammon. The motivation for doing do would have been to store the results of that monitoring, processes the results to determine whether any unauthorized access of the wireless network of interest has occurred, and notifies users of the results and the processing. ([0012])

As per claims 10 and 29, Billhartz / Aamon disclose the method of claim 1. Billhartz fails to disclose wherein said entity is a computer system running a particular

operating system. Aamon discloses wherein said entity is a computer system running a particular operating system. ([0055]) At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to disclose wherein said entity is a computer system running a particular operating system. The motivation for doing do would have been to store the results of that monitoring, processes the results to determine whether any unauthorized access of the wireless network of interest has occurred, and notifies users of the results and the processing. ([0012])

As per claim 11, Billhartz/ Aamon disclose the method of claim 1, and Billhartz discloses wherein said entity is a user of said computer network. (Col 7 lines 54-63)

As per claim 12, Billhartz/ Aamon disclose the method of claim 1, and Billhartz discloses wherein said entity is a computer system. (Col 6 lines 29-36)

As per claim 14, Billhartz / Aamon disclose the apparatus of claim 13. Billhartz discloses wherein the selected value is not based on an Internet Protocol (IP) address such the node can be correlated to one of the tracked entities. (Col 11 lines 12-22) Billhartz fails to disclose wherein the selected value is not based on an Internet Protocol (IP) address such the node can be correlated to one of the tracked entities when the node is subject to dynamic IP address assignment. ([0161] At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to disclose wherein the selected value is not based on an Internet Protocol (IP) address such the

node can be correlated to one of the tracked entities when the node is subject to dynamic IP address assignment in the disclosure of Billhartz. The motivation for doing do would have been to store the results of that monitoring, processes the results to determine whether any unauthorized access of the wireless network of interest has occurred, and notifies users of the results and the processing. ([0012])

As per claim 15, Billhartz/ Aamon disclose the apparatus of claim 13, and Billhartz discloses wherein the selected value is based on a physical address for the node when a security identifier is unavailable. (Col 6 lines 5-16; security identifier is unavailable in this case)

As per claim 16, Billhartz / Aamon disclose the apparatus of claim 13, and Billhartz discloses wherein the selected value is based on a physical address for the node when a serial number is unavailable. (Col 6 lines 5-16; serial number is unavailable in this case)

As per claim 17, Billhartz / Aamon disclose the apparatus of claim 13, and Billhartz discloses wherein the selected value is based on a physical address for the node when a different preferred identifier is unavailable. (Col 6 lines 5-16; different preferred identifier is unavailable in this case)

As per claim 18, Billhartz / Aamon disclose the apparatus of claim 13, and Billhartz discloses wherein the selected value is based on both a physical address and a network address when a different preferred identifier is unavailable. (Col 6 lines 5-16; different preferred identifier is unavailable in this case, the remaining layers of the OSI model may also be used for data transmission as well, and other suitable network data transfer models may also be used , and that includes the network layer for IP or network address)

As per claim 19, Billhartz / Aamon disclose the apparatus of claim 13, wherein the selected value is either not a network address or is a combination of the network address and a globally unique identifier. (Col 6 lines 5-16)

As per claim 20, Billhartz/ Aamon disclose the apparatus of claim 13, and Billhartz discloses the selected value is not based on an IPv4 address such the node can be correlated to one of the tracked entities. (Col 6 line 5-16; based on MAC address) Billhartz fails to disclose the selected value is not based on an IPv4 address such the node can be correlated to one of the tracked entities even when the node is subject to dynamic IPv4 address assignment. Aamon disclose the selected value is not based on an IPv4 address such the node can be correlated to one of the tracked entities even when the node is subject to dynamic IPv4 address assignment. ([0161]) At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to disclose the selected value is not based on an IPv4 address such the

node can be correlated to one of the tracked entities even when the node is subject to dynamic IPv4 address assignment. The motivation for doing do would have been to store the results of that monitoring, processes the results to determine whether any unauthorized access of the wireless network of interest has occurred, and notifies users of the results and the processing. ([0012])

As per claim 21, Billhartz/ Aamon disclose the apparatus of claim 13. Billhartz discloses wherein the processors are further operable to:

select either a security identifier provided by an operating system of the node or a serial number provided by a basic input output system of the node for the value when the received node information includes either the security identifier or the serial number; (Col 3 lines 10-22)

and select a physical address for the value when the received node information does not include either the security identifier or the serial number. (Col 6 lines 5-16; security identifier or serial identifier is unavailable in this case)

As per claim 22, Billhartz/ Aamon disclose the apparatus of claim 13. Billhartz discloses wherein the processors are further operable to trigger issuance of an intrusion alarm when the node does not correspond to one of the tracked entities. (Col 4 lines 4-13)

As per claim 23, Billhartz/ Aamon disclose the apparatus of claim 23. Billhartz discloses wherein issuance of a false alarm is avoided when the received node information is linked to an existing entry in the database. (Col 4 lines 4-13)

As per claim 24, Billhartz / Aamon disclose the apparatus of claim 13. Billhartz discloses wherein the processors are further operable to use adaptive scanning before determining whether to issue an alarm. (Col 4 lines 4-13)

As per claim 26, Billhartz / Aamon disclose the method of claim 25. Billhartz discloses wherein said multiple identifiers comprise a media access control (MAC) address (Col 6 line 5-16)

As per claim 27, Billhartz/ Aamon disclose the method of claim 25. Billhartz disclose wherein said multiple identifiers further comprise a computer name. (Col 3 lines 10-22)

As per claim 28, Billhartz/ Aamon disclose the method of claim 27. Billhartz discloses wherein said multiple identifiers further comprise a domain name. (Col 11 lines 12-22; authorized network as domain name)

As per claim 30, Billhartz/ Aamon disclose the method of claim 28. Billhartz disclose wherein said multiple identifiers comprise at least two of: a media access

control (MAC) address, a computer name, a domain name, and an operating system. (Col 11 lines 12-22, authorized network as domain name)

As per claim 31, Billhartz/ Aamon disclose the method of claim 25. Billhartz discloses wherein said unique identifier comprises a security identifier. (Col 3 lines 10-22)

As per claim 33, Billhartz/ Aamon disclose the method of claim 25. Billhartz discloses further comprising: returning an identifier for an entity in response to a request including a node identifier. (Col 1 lines 38-52)

As per claim 34, Billhartz/ Aamon disclose the method of claim 25. Billhartz discloses further comprising: returning identifiers for all nodes associated with an entity in response to a request including an entity identifier. (Col 4 lines 4-13)

As per claim 35, Billhartz/ Aamon disclose the method of claim 25. Billhartz discloses further comprising: returning node information in response to a request for said node information including a node identifier. (Col 4 lines 4-13)

As per claim 37, Billhartz/ Aamon disclose the system for tracking entities in a computer network of claim 36, and Billhartz discloses further comprising means for

determining if the unique identifier from said node information matches a unique identifier in said database. (Col 4 lines 4-13)

As per claim 38, the system for tracking entities in a computer network of Claim 36, further comprising means for determining if a media access control (MAC) address from said node information matches a MAC address in said database, if there is not the unique identifier in said node information. (Col 4 lines 4-13)

As per claim 43, Billhartz/Aamon disclose the same limitations as claim 1 , and Billhartz further discloses wherein said engine is further operable to determine if a media access control (MAC) address from said node information matches a MAC address in said database, if there is not a unique identifier in said node information. (Col 4 lines 4-13, Col 6 lines 5-16)

Claims 39-40 and 44-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Billhartz (US 6,986,161) / Ammon (US 2003/0217289) further in view of Short et al. – hereinafter Short (US 7,194,554)

As per claims 39 and 44, Billhartz/Aamon disclose the system for tracking entities in a computer network of Claim 36. Billhartz fails to disclose further comprising means for determining if a computer name from said node information matches a computer name associated with said MAC address in said database. Short discloses further

comprising means for determining if a computer name from said node information matches a computer name associated with said MAC address in said database. (Col 9 lines 8-26; Col 10 lines 9-37) At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to disclose further comprising means for determining if a computer name from said node information matches a computer name associated with said MAC address in said database in the disclosure of Billhartz. The motivation for doing do would have been to for selectively implementing and enforcing Authentication, Authorization and Accounting (AAA) of users accessing a network via a gateway device. (Col 3 lines 9-44)

As per claims 40 and 45, Billhartz/Aamon disclose the system for tracking entities in a computer network of claim 36. Billhartz fails to disclose means for determining if a computer name from said node information matches a computer name in said database; and means for determining if a domain name from said node information matches a domain name associated with said computer name in said database. Short discloses means for determining if a computer name from said node information matches a computer name in said database; and means for determining if a domain name from said node information matches a domain name associated with said computer name in said database. (Col 9 lines 8-26; Col 10 lines 9-37) At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to disclose means for determining if a computer name from said node information matches a computer name in said database; and means for determining if a domain

name from said node information matches a domain name associated with said computer name in said database in the disclosure of Billhartz. The motivation for doing do would have been to for selectively implementing and enforcing Authentication, Authorization and Accounting (AAA) of users accessing a network via a gateway device. (Col 3 lines 9-44)

Allowable Subject Matter

Claims 4 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Billhartz was relied upon per Col 2 lines 25-30, "provide a mobile ad-hoc network (MANET) with intrusion detection features and related methods." Ammon was relied upon to disclose per [0118], "This process checks the new IDS events and adds new unknown clients to the database according to the above schema. Information about the unknown clients that is entered into the database can include the MAC address, SSID, IP address, channel, signal strength, and WEP status"

As per claims 4 and 9, a thorough review of prior art fails to disclose specific conditions of "selecting a security identifier provided by an operating system of the node as the unique identifier when the analysis indicates that the node information includes the security identifier; selecting a serial number provided by a basic input output system of the node as the unique identifier when the analysis indicates that the node

information does not include the security identifier; and selecting a physical address as the unique identifier when the analysis indicates that the node information does not include either of the security identifier and the serial number."

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag R Patel whose telephone number is (571)272-7966. The examiner can normally be reached on Monday to Friday from 7:30AM to 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia, can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pairdirect.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

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